

*Exceptional service in the national interest*



**Sandia  
National  
Laboratories**



## **Custodial Services**

### *End of Year Report for 2016*

## Mission

The mission of the Custodial Services Department is to provide the highest quality of custodial services to Members of the Workforce in support of Sandia's core values:

- We serve the nation.
- We deliver with excellence.
- We respect each other.
- We act with integrity.
- We live safe and healthy lives.



## Custodial Services Department

Sandia's Custodial Services Department is a full-service, in-house custodial department. The department consists of one manager, four team supervisors, three administrative support personnel, 11 lead custodians, 71 day-shift custodians, four swing shift custodians, and eight heavy floor care personnel. The department services approximately 3.5 million square feet of office, lobby, laboratory, break room, classroom, and conference room space and assists with the collection of recycling products, including aluminum, plastic, card board box, and mixed paper products.

The department has been utilizing the Operating System 1 (OS1) cleaning process since 1999 for daily cleaning, which emphasizes health first and appearance second. The (OS1) process was developed by ManageMen Inc., in Salt Lake City, Utah, and separates custodial work into four specialties—restroom specialist, vacuum specialist, utility specialist, and light-duty specialist. All Sandia custodians are certified in each of these specialties.

*"Sandia Custodians discarded over 1.3 million pounds of solid waste in CY 2016."*

The Custodial Services Department also maintains a Heavy Floor Care Team. This team is responsible for the annual stripping and refinishing of flooring, as well as shampooing of all carpets.

## Audits, Awards, and Certifications

### (OS1)

During the 2016 Simon Institute Symposium, the Sandia Custodial Services Department received several awards. The Symposium is held annually and serves as an opportunity for those organizations who utilize the (OS1) cleaning process to gather and discuss best practices in the cleaning industry. This year's Symposium was held in Albuquerque at the Hotel Albuquerque. The Sandia Custodial organization was able to have a large group attend the event. The Symposium also provides an opportunity to recognize organizations for their outstanding achievements during the previous 12 months. During the 2016 Symposium, Sandia National Laboratories received several awards, including Best (OS1) Audit. This award is given to the organization with the highest overall audit score during the 2016 audits. This third party audit is based on 627 key factors. Sandia received an audit score of 95%. Sandia has received this award every year for the past nine years. Sandia also received the Safety Award. This award is given to the organization that can tangibly demonstrate strength, upgrades, and improvement in their overall custodial safety program. Finally, Sandia received the Green Certified Program of Excellence Award. This award recognizes those organizations that obtain an audit score of 90% or greater. Of the many organizations that were audited, only three received this prestigious award. The (OS1) awards served as

recognition of the hard work and dedication of the men and women of the Sandia Custodial Services Department.

### Symposium Tour

Sandia's Custodial Services hosted a tour of our facility for attendees of the Simon Institute Symposium on August 2, 2016. This tour included a windshield tour of the Laboratory with a tour guide that narrated the highlights. Visitors were able to visit one of our Leadership in Energy and Environmental Design (LEED) certified buildings (858EL). We invited one of Sandia's LEED architects to give a brief talk regarding the criteria of LEED and how our custodial process assists in LEED certification and sustainability.

Management performed a mock audit on one of our custodial crews to show our visitors the process of our rigorous audit process. This helped validate why Sandia Custodial consistently receives the prestigious award of (OS1) Best Audit more than any other organization in the United States.



### Benchmarking

Sandia Custodial hosted a benchmarking visit for three employees from Brookhaven National Laboratory based in New York. Brookhaven sent their Facilities Manager, a Team Supervisor, and Team Lead to meet with our Custodial Management Team. Brookhaven personnel attended several field locations with various Custodial Teams for additional benchmarking opportunities while observing actual fieldwork.

### Purchasing and Efficiency

We purchased various machines to ensure our commitment to the laboratory on cleaning for health is consistently in line with our vision.

We purchased Chariot I scrub machines, Chariot vacuums, Chariot burnishers, walk-behind sweepers, carpet-cleaning machines, electric burnishers and scrubbers, wet/dry vacuums, counter rotating carpet brushes, entry way carpet mats, and several de-humidifiers. We also purchased four new vantage trucks to replace four old, high-maintenance vehicles.

The new purchase of wet/dry vacuums, air movers, carpet-cleaning machines, and de-humidifiers assist our crew in the event there is a flood.

### Chariot Auto Scrubbers and Efficiency

**Conservation:** One of its greatest benefits is the Aqua-Miser technology on the Chariot. With this, you typically experience a 50% greater use from the same gallon of water used previously. While this is terrific for conservation of resources, it also reduces labor costs associated with emptying and refilling of tanks. Due to the higher yield of square footage cleaned per hour, you can clean up to 100,000 square feet per battery charge, which will equate to reduced electricity use per square foot cleaned. If you experience fewer battery recharges, it would also mean fewer emissions from batteries while they are being charged, for improved indoor air quality.

**Safety:** With a 40% (approximate) smaller footprint than the previous ride on-scrubber, the machine itself is less invasive into the work area where foot traffic could be impacted negatively. The machine also has a clearer line of vision for increased safety during operation. Ergonomically the Chariot is friendlier with a lower step up and standing position, rather than the higher step up, and twist-to-sit-

down of the previous machine. There have been studies showing less operator fatigue with the Chariot over other auto scrubbers.

**Efficiency:** The smaller footprint of the Chariot allows you to clean further into corners than you could previously, reducing the amount of manual cleaning in these areas. With the Aqua-Miser program there is no water left behind the machine that you may have previously mopped manually. Lastly, due to the improved visibility and maneuverability of the Chariot, we should be experiencing a 15% to 20% improvement in cleaning times.

## ISO 14001

Custodial Services continuously participates in the Division 4000 ISO 14001 sustainability efforts. This helps to maintain the corporate certification for ISO.

During the last audit, management had the opportunity to provide auditors with an overview of the department, which included a detailed briefing of its processes. Management received several favorable comments, including the following comment from one of the auditors, “Custodial Services blew me away—an amazing process.” At the conclusion of the audit, the department was listed in the *Great Performers* section of the audit report.

## Composting

As a significant step towards Zero Waste by 2025 for the Sandia/New Mexico campus, restroom paper towel composting is being rolled out. Restroom paper towels are not recyclable due to paper quality and the potential for organic contamination. They make up approximately 15-20% of Sandia’s solid waste to the landfill.

We currently are conducting composting pilots in Buildings 823,895,960, and 1008.

## Environmental Management System Excellence Award

The Custodial Services Department was the winner of the Sequoia Award for two environmental initiatives from the Environmental Management System Awards Ceremony in April 2016. These include composting and mixed paper recycling initiatives. The annual Environmental Management System (EMS) Excellence Awards recognize exemplary accomplishments made by members of the workforce that contribute to the vision of Sandia’s EMS. The Sequoia Award is given to projects that affect the entire laboratory and have a large reach. This award was based on the excellent strides toward meeting reduce, reuse, and recycle goals.

## Building Leadership in Energy and Environmental Design (LEED) Certification

The department participated in the LEED certification of Building 705 and 756. The Custodial Services Department was responsible for providing a Green Cleaning Plan as documentation in support of all custodial points for the building.

*“By utilizing 100% recycled paper products in restrooms, Sandians saved over 767 mature trees last year.”*

## Did you know facts?

**Can Liners** – By right sizing and reducing the mil thickness, annually we have:

- Reduced plastic going into the landfill by 19,750 pounds
  - That’s equivalent to 10,975, five-gallon plastic paint pails, or 149,310, one-gallon plastic milk bottles



**Paper Towel & Tissue** – By using 100% recycled product verses simple EPA-compliant towels and tissue, annually we have:

- Reduced the number of trees cut down by 767 trees
  - That's equivalent to 240,781, one-pound books
- Reduced free water usage by 315,749 gallons of water
  - That's equivalent to 2,525,992, 16-oz bottles of water
- Reduced the cubic yards of landfill by 144 yards
  - That's the equivalent to 2,242 bags of household kitchen trash

**Foam Hand Soap** – By providing foam hand soap over the previous liquid version:

- We reduced water consumption by 1,506,000 gallons annually (based on a study by Davis Medical Center at the University of California)
  - That's equivalent to 251,000 washes by the average household dish washer

**Vacuuming** – Did you know that Custodial Services uses high-efficiency filtration for all vacuuming performed in Sandia facilities? At 99.9%, capture of particulates are down to 1 micron (1/100th of a human hair); that's 43% cleaner air than accomplished with the average household vacuum.

## Department Highlights

### Reduction in Duty-Related Injuries

Continuing in the positive trend and ultimate goal of zero injuries, working with the Facilities Environmental Safety and Health Department, Custodial Services achieved a record setting remarkable zero duty-related recordable injuries for the fiscal year 2016, and a total of only three first aid injuries. This was done while performing 181,188 labor hours' worth of custodial work. This resulted in a 100% reduction of total recordable injuries from FY 2014/2015.

### Protocol Visits

Sandia's Custodial Services Department supported approximately 80 protocol visits throughout the laboratories last year. These protocol visits and the work our crew perform reflect a first impression of our laboratory. Upon being notified of a visit, the Custodial Teams conduct a thorough walk-through of their respective buildings to ensure they are properly prepared for the visit. While the department always strives to keep its buildings in good condition and order, protocol visits provide the Custodial Teams with the opportunity to go above and beyond to ensure Sandia's buildings support the company's strategic initiatives. As a result, the department received many letters of appreciation from customers and Sandia protocol officials for the Custodial Teams' efforts during these visits.

### Employee Career Development Opportunities

The department was able to provide numerous career development opportunities to its employees in 2016. These opportunities included the following:

- (OS1) Coach Training
- (OS1) Janitor University (6 Team Members attended)
- (OS1) Train the Trainer (1 Lead Custodian and 2 Certified Trainers)
- (OS1) Work loading class
- (OS1) Bootcamp (27 new hires and 15 re-certifications)

- Influencer Training
- Administrative Professionals Forum
- HPI Fundamentals of Human Performance
- Lead Custodian and Management Team Bootcamp
- CNM Manual Vehicle Operation Training Certification
- Trailer Safety Awareness Training

The department also continued a Custodial Brown Bag Program. The brown bag sessions are voluntary and are held during the employee's lunchtime. Throughout the year, management solicits managers from across the laboratories to provide a 30-minute presentation of their department and the positions available within their respected areas. The brown bag sessions have resulted in several custodial employees enrolling in college education programs in an attempt to meet the qualifications of the jobs in which they are interested.

### Work Loading Workshop

The Custodial Department had two representatives that were selected to participate in the (OS1) Work Loading Workshop. During the workshop, work loaders had the opportunity to share best practices.

### Maximo Tickets

During 2016, the Custodial Services Department received a total of 999 Maximo tickets requesting some form of custodial service. The department was able to perform these services with a total of four callbacks for the FY16 period.

### Heavy Floor Care Work

The Heavy Floor Care Team serviced over 1.6 million square feet of tile and carpet in buildings located throughout Technical Areas II, III, IV, and V as well as remote sites, which received 100% completion. This was a 15% increase from the previous year. This task was accomplished with the help of the building operations techs, lab owners, and customers. With the assistance of operations techs, the Custodial Services Department was able to identify areas that had not been serviced in the past. In addition to providing floor care to the main areas of the buildings, approximately 90% of the labs within these buildings were also serviced. The team was also able to coordinate the servicing of Sandia's high-security buildings, which also had not been serviced by the team in the past.



### New Equipment

The Custodial Services Department has been continually seeking new opportunities to improve its efficiency and effectiveness. Towards this end, the department invested in a new carpet cleaning machine—the Prochem truck mount system a few years ago. This has proven to be a successful piece of equipment. We were able to purchase a second unit this year to improve our efficiency. This team has consistently received positive praise for its outstanding work. This will also expand our capabilities while responding to floods while minimizing impacts to mission work.

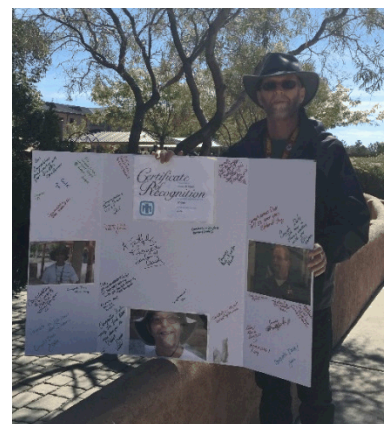
*"Each week Sandia Custodians mop and vacuum the amount of flooring that is equivalent of 60 football fields."*

## Enhancements to Training and New Hires Area

During FY16, interior design was enhanced within Custodial Services New Hires training areas (T-9 and T-10 room 4c) which included the reapplication of all furniture (desk, table, chairs, and white boards). Additionally, carpet and tile was removed from T-9 and replaced with Nora Flooring material throughout. Both areas received new paint and furniture which including a 65" flat screen television, white boards, chairs, tables, industrial refrigerator, ice machine, kitchen cabinets, and sink. The total cost of this enhancement was approximately \$60,000.00 all of which has positively impacted work force moral.

## A Celebration of Service

During October 2016, Mr. Vernon Dale Marsh received recognition for his service. Custodial Services Manager Joshua Konetzni presented Mr. Marsh with his 35<sup>th</sup> Anniversary Certificate of Appreciation. Mr. Marsh holds the record for working as a custodian longer than any other employee at Sandia National Laboratories.



## Flu Season

Throughout the year, one of the Custodial Services Department's top priorities is to help keep members of the workforce healthy. The department does this by increasing the frequency and intensity of cleaning during flu season. We utilize germicidal detergent solution on common areas that could become contaminated with the influenza virus (handrails, door push plates, counter tops, etc.). This process reduces the transmission of fomites (substance capable of carrying infectious organisms, such as germs or parasites) and thus, their transference from one individual to another.

## Departmental Promotions

The Custodial Services Department has traditionally been recognized as a "gateway" into Sandia for many employees. In 2016, the department hired 27 new employees. The need to hire these employees was the direct result of Custodial employees being promoted to other positions within the laboratories. These positions included the following:

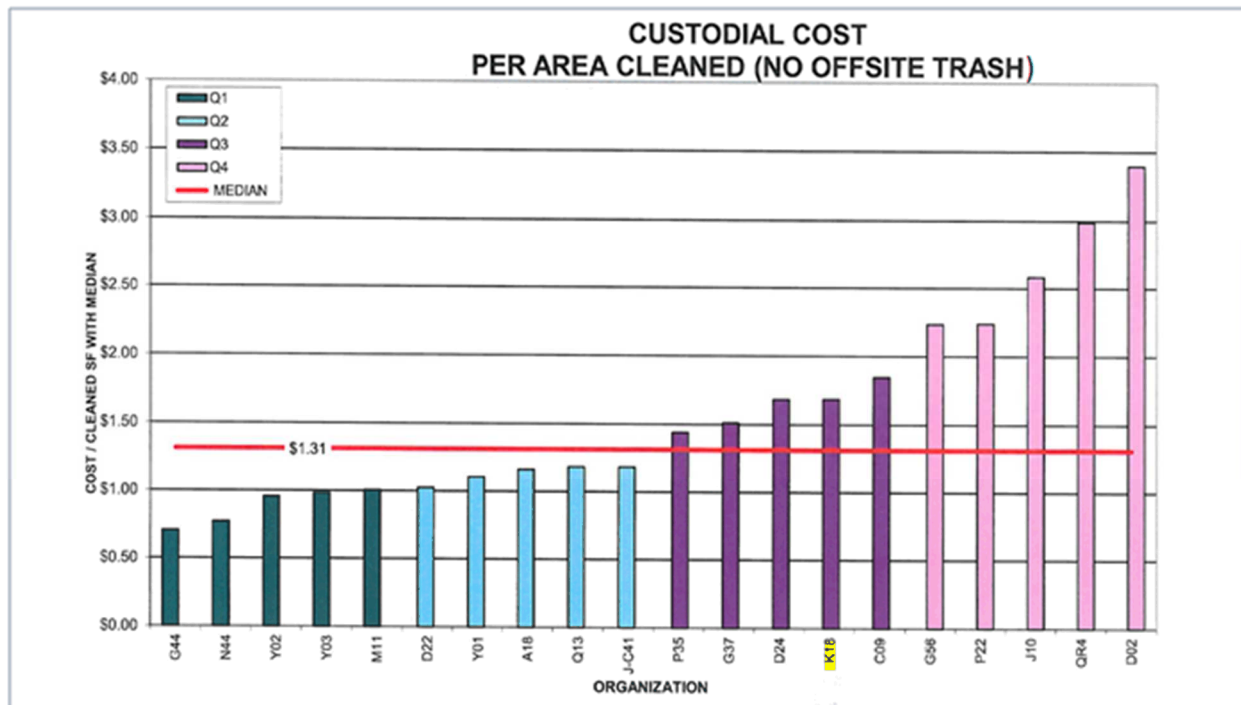
Departmental Promotions:

- Reapplication Team
- Active Ceramics
- General Business Management
- Transportation Receiving
- Office of Secure Transportation/Vehicle Maintenance

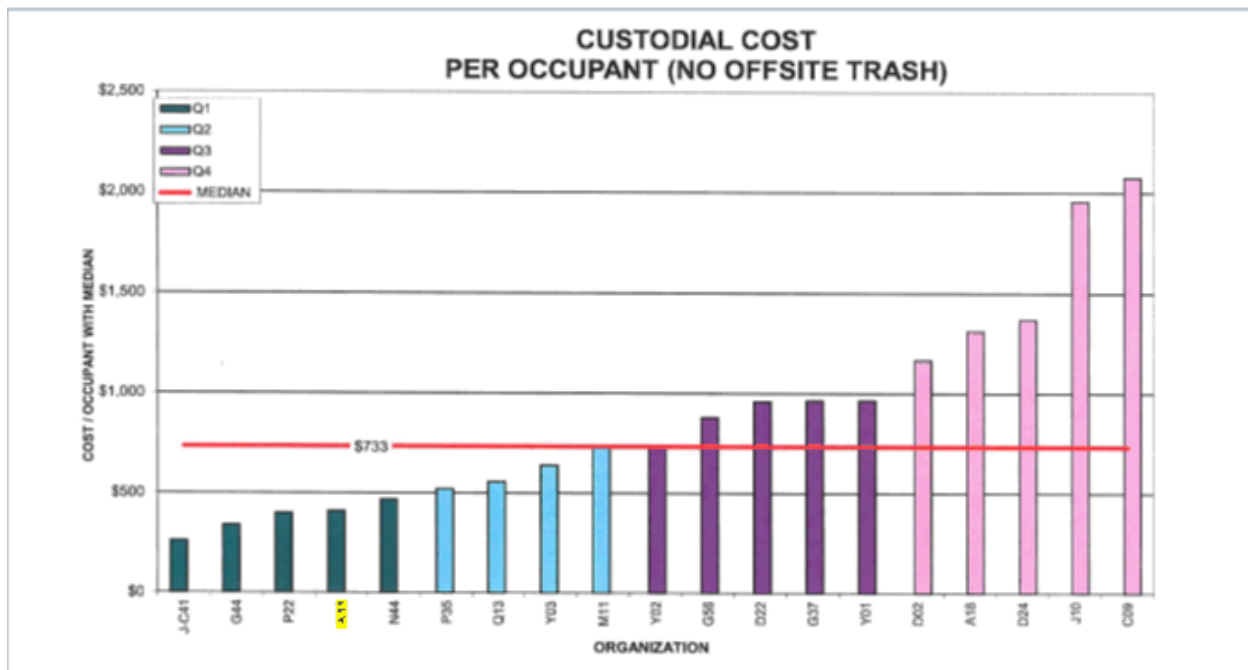
- Administrative Services-Clerical Support
- Badge Office/Clearance Office
- Grounds and Roads

## Custodial Metrics

The Sandia Facilities organization participates in the Research Facilities Benchmarking survey that was published in August of 2014. The survey compared 19 facility organizations throughout the country. Some of the organizations that participated included Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Brookhaven National Laboratory, and several other private companies. Sandia is designated as “K18” in the following charts, which provide custodial service comparisons among the organizations surveyed. While these charts do provide some data for comparison, these charts do not take into account factors such as the depth or effectiveness of the cleaning conducted by each organization. As stated previously, the Sandia Custodial Services Department has been recognized as one of the premier (OS1) custodial organizations in the country based on information obtained during yearly progress audits. Sandia was also recognized during the 2014 ISO 14001 Recertification for its outstanding cleaning processes.







Unfunded Facilities/Systems—Deficiencies and Opportunities Process

